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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,053	04/11/2007	Kaj Henricson	JHN-30-580	1838

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EXAMINER	
MINSKEY, JACOB T	
ART UNIT	PAPER NUMBER
1791	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/595,053	HENRICSON ET AL.	
	Examiner	Art Unit	
	JACOB T. MINSKEY	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The Examiner acknowledges the amendment to the claims in order overcome the claim objections and to correct matters of grammar.

2. Applicant's arguments filed 1/19/2010 have been fully considered but they are not persuasive.

3. Applicant traverses the rejection of the claims in view of Qvintus. Applicant argues that the prior art teaches that it is not possible to reach a satisfactory washing result between bleaching stages without an adequate amount of fresh water being introduced. Applicant recites page 5 lines 26-30 of the instant specification as evidence for Qvintus not teaching this concept.

4. The Examiner does not find this argument persuasive, as no evidence from Qvintus is utilized in the argument. Page 5 of the instant specification does not refer to the process of Qvintus. Page 5 also only provides a conclusion statement saying that there are balance calculations that prove that the efficiency of the method is inferior. There is no date provided, and arguments cannot take the place of evidence to show surprising and unexpected results.

5. Applicant further states that while Qvintus teaches a reduction of washing losses, there is no disclosure of a decrease in second washing liquid. On Page 9 of the Applicant's Remarks, Applicant states that the amount of fresh water remains constant. Afterwards, applicant then argues that the dilution factor of the latter (which Examiner is assuming is referring to the second wash) wash is higher than the 1 t/adt limit set in the

claims. It is unclear to the Examiner is the Applicant is stating that the fresh water of Qvintus remains constant or has too great of a dilution factor to read on the claim, or if Applicant is arguing a total water loss as having too much of a dilution.

6. In response to these arguments, the Examiner respectfully disagrees. Claim 1 states that the second washing liquid has a dilution of less than 1 t/adt. This equates to any form of dilution that is less than 1. If Applicants argument of no change in the second wash liquid is correct, it would still read on the claims as having a 0 dilution factor (which is less than 1). Additionally the claim requires the dilution in terms of "factor" and not a set amount. The argument of 7.6-5.1 = 2.5 t/adt is a set number and not a representation of a factor, which the Examiner understands to be a unit of relative multiples and not specific values.

7. It is the Examiner's stance that the Qvintus reference obviates the claims (as currently written) for the reasons listed above in addition to the explanations provided in the previous Office Action (which is repeated below).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Qvintus et al, WO 97/10379.

12. Regarding claims 1 and 8, Qvintus teaches a method for treating pulp in connection with the bleaching of chemical pulp (can be used in a bleaching plant (page 2 line 20), said method comprising washing the pulp in a washing device (used in a number of different apparatuses including DD washers Page 1 line 7), whereby washing liquid is introduced into the washing device countercurrently (see page 3 lines 15-27) in relation to the pulp and a filtrate is discharged from the washing device (see figures 1-

10), wherein the pulp is washed in the washing device using a first washing liquid comprising filtrate obtained from the washing device (see page 12 lines 18-31 and figure 8), wherein an amount of the circulated washing liquid filtrate is 1.5-3.5 t/adt pulp (page 11 line 14, 2.5 tons of liquid), whereafter the pulp is washed with a second washing liquid introduced from outside the washing device (see figures 8-10).

13. The Examiner understands the term dilution factor to be positive when more water is added to the washer than is in the solution when it exits, and also that when it is negative, than there is more liquid in the exiting pulp than was entered into the wash, so the Examiner reads that the limitation requires that the second washing stage can use up to one ton more fluid than is expelled in this stage, and that overall there is more wash fluid used than is in the final washed pulp.

14. Regarding the claimed dilution factors, Qvintus teaches a multiple stage washing process that includes both diluting phases and thickening stages (figures 5-10 both prior art and current invention). The dilution and thickening is taught in the form of controlling the consistency of the pulp (page 11 and page 16 lines 13-22), and Qvintus teaches that the type of washer will determine the starting and operating consistency of the pulp during washing (page 1). The only time an amount of filtrate is mentioned is in describing the state of the art washers from figures 5 and 6 in which 2.5 tons of liquid is removed to increase the consistency (see descriptions from pages 11-16).

15. Additionally, the DD washers taught by Qvintus are the same type of washers discussed in the instant specification, and would inherently read on the limitations of having an E.sub.10-value of at least 3. Additionally, it would be obvious to one of

ordinary skill in the art at the time of the invention to utilize the most efficient washer available for the benefit of saving materials, time, and money during the washing process.

16. With respect to the values of dilution factor, it is a result effective variable based on the amount of water entered into the drum, the amount of spinning performed, and the desired final consistency, all taught by Qvintus (see above). All of these variables are easily controlled by one of ordinary skill in the art at the time of the invention, and it has been held that optimizing result effective variables through routine experimentation is within the ability of one of ordinary skill in the art (In re Aller, USPQ 233 (CCPA 1955)).

17. While Qvintus does not actively teach the steps of treating the pulp in an ozone, chlorine dioxide, or alkali stage, Qvintus does teach that this washing stage can be performed in a bleaching plant (page 2 line 20). It would have been obvious to one of ordinary skill in the art at the time of the invention that one of the prior process steps in a bleaching plant prior to washing would be to treat the pulp in either ozone, chlorine dioxide, or alkali for the benefit of bleaching the pulp using one of the three most common bleaching methods in the pulp and paper industry.

18. Regarding claims 2, 4-5, 7, 12, and 15-17, Qvintus remains as applied above and further teaches that the dilution and concentrations of the final pulp and wash steps can be adjusted due to the apparatus used and the desired outcome. The dilution factor is a result effective variable based on the amount of water entered into the drum, the amount of spinning performed, and the desired final consistency, all taught by Qvintus

(see above). All of these variables are easily controlled by one of ordinary skill in the art at the time of the invention, and it has been held that optimizing result effective variables through routine experimentation is within the ability of one of ordinary skill in the art (In re Aller, USPQ 233 (CCPA 1955)).

19. Regarding claims 3, 6, and 13-14, Qvintus further teaches that the filtrate obtained from the washing device is fractionated into at least two flows (see figures 6-14, pages 12 lines 18-31 and page 14 lines 18-29), at least one of which is in a range of 1.5-3.5 t/adt and is formed of a final part of filtrate exiting the washing device (see arguments above), which final part comprises less than 30% of the total exiting filtrate amount and which is used for the first wash of the pulp (5-15% of the displacement filtrate from the end part of a washing stage is taken to the beginning of the washing stage, this passage also teaches fractioning and rejoining flows for the same purpose, page 14 lines 18-29).

20. Regarding claim 9, While Qvintus does not actively teach the steps of treating the pulp in ozone, chlorine dioxide, or alkali stage, Qvintus does teach that this washing stage can be performed in a bleaching plant (page 2 line 20). It would have been obvious to one of ordinary skill in the art at the time of the invention that one of the prior process steps in a bleaching plant prior to washing would be to treat the pulp in either ozone, chlorine dioxide, or alkali for the benefit of bleaching the pulp using one of the three most common bleaching methods in the pulp and paper industry.

21. Regarding claims 10 and 11, Qvintus further teaches that the washing device is an at least one of a pressure drum washer, washing press or a diffuser (see page 1 lines 1-20).

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB T. MINSKEY whose telephone number is (571)270-7003. The examiner can normally be reached on Monday to Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/
Supervisory Patent Examiner, Art Unit 1791

JTM